

JP 59-170228 (AS APPLICATION NO.)

-1- (JAPIO)

ACCESSION NUMBER

86-049373

TITLE

NEGATIVE ELECTRODE ACTIVE MATERIAL FOR

ALKALI DRY

CELL

PATENT APPLICANT

(2352016) DOWA MINING CO LTD

INVENTORS

TAKEDA, RYUZO; OOHAMA, SHIGERU;

ISHIBASHI, YUKIO

PATENT NUMBER

86.03.11 J61049373, JP 61-49373-

APPLICATION DETAILS

84.08.15 84JP-170228, 59-170228

SOURCE

86.07.22 SECT. E, SECTION NO. 421;

VOL. 10, NO. 209,

PG. 32.

INT'L PATENT CLASS

H01M-004/42

JAPIO CLASS

42.9 (ELECTRONICS--Other); 29.1

(PRECISION

INSTRUMENTS--Photography &

Cinematography); 29.3

(PRECISION INSTRUMENTS--Horologe); 29.4

(PRECISION

INSTRUMENTS--Business Machines); 42.5

(ELECTRONICS--Equipment); 44.5

(COMMUNICATION--Radio

Broadcasting)

ABSTRACT

PURPOSE: To manufacture an alkali dry cell without use of mercury by suspending zinc powder in an alkali solution, and adding, to said suspension, a fluid alloy containing at least three kinds among bismuth, lead, indium, cadmium, and gallium.
CONSTITUTION: A fluid alloy is yield by combining elements of three kinds or more within the ranges of bismuth from 40-50wt%, lead from 18-25wt%, indium from 18-25wt%, cadmium 6wt% or less, and gallium 80wt% to the weight of the zinc powder. Non-amalgamated zinc powder so yielded allows a hydrogen overvoltage alloy component and zinc to be sufficiently alloyed on a surface layer thereof, whereby it becomes to have excellent resistance to corrosion as well as good discharge characteristics being substantially the same performance in comparison with a case of employing prior amalgamated zinc powder. Hereby, an alkali dry cell can be manufactured without use of harmful mercury.